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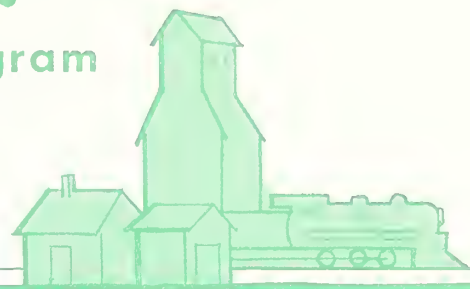
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# Clean Grain Notes

for Cooperators in Clean Grain Program



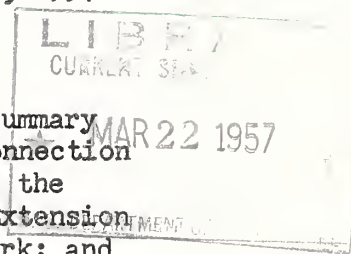
FEDERAL EXTENSION SERVICE

U. S. DEPARTMENT OF AGRICULTURE

NO. 5

February 21, 1957

We believe you will be interested in the attached Summary of State Extension Service activities in 1956 in connection with the Clean Grain Program. The summary includes the status of State Clean Grain Committees; the State Extension Service organization for clean grain educational work; and major activities such as training schools, meetings and other efforts directed at assuring clean grain.



Sincerely yours,

*Otto C. Croy*

Otto C. Croy  
Assistant Administrator -  
Programs

Attachment

Federal Extension Service Clean Grain Committee: Otto C. Croy, chairman; M. P. Jones, entomologist; J. B. Claar, agricultural economics; Robert O. Gilden, agricultural engineering; Tom Hall, economist (marketing); J. R. Paulling, agronomist; Bryan Phifer, information; Kenneth D. Goodrich, information; C. A. Sheffield, field agent; Eunice Heywood, home economics; P. F. Aylesworth, program relationships.

IP-24 (2-57)



## CLEAN GRAIN EDUCATIONAL PROGRAM--1956

### COMMITTEES

In replying to requests for a progress report on grain sanitation activities during 1956, 33 State Extension Services reported that clean grain programs of varying nature and scale were continued or undertaken during the past year. Twenty-six of these States have clean grain committees. Fourteen of the State committees may be categorized as having broad representation encompassing various commodity, industrial, Federal, State, private and agricultural groups. The remainder of the committees are smaller in composition and representation, occasionally made up of Extension Service personnel alone.

Typical composition of the larger committees includes representatives of the milling, feed and grain industries, the agricultural press, radio and television, boards of trade, boards of health, farm cooperatives, Commodity Stabilization Service, Commodity Credit Corporation, land-grant college extension service and experiment station staffs, U. S. Fish and Wildlife, railroads, U. S. Food and Drug Administration, Agricultural Marketing Service, building dealers, Grain Producers Association pest control groups, public utilities.

### EXTENSION ORGANIZATION

State Extension Service organization for educational work in clean grain is fairly uniform. The team approach is used, and the extension team usually includes an entomologist, an agronomist, an agricultural engineer, a marketing specialist, and information specialist. In many cases, directors of extension and district agents act in an advisory capacity.

The extension team works closely with county agents and industry, farm organizations, and trade representatives and others in implementing the clean grain program throughout the State. This team approach to the educational program effectively provides the technical guidance necessary to deal with the many facets of growing, handling, storing, and marketing clean grain. Each team member contributes not only in the area of his specialized field, but also to the overall program.

Following are typical examples of the roles of members of the extension team, selected States which are listed by number.

# TYPICAL ROLES OF EXTENSION SPECIALISTS IN THE CLEAN GRAIN PROGRAM IN SELECTED STATES

Specialist	State 1	State 2	State 3
Entomologist	Rodent, Insect Control and organization.	Conducts storage survey to determine contamination, etc. Prepares information for educational purposes.	Trains County staffs in grain sanitation works with growers, handlers.
Marketing Specialist	Education, promotion, marketing.	Works in conjunction with others to further programs.	Trains County staffs in economic efforts of contamination, arranges for meetings.
Agronomist	Education, promotion, marketing.	Spearhead entire program for State.	Concerned with production, harvest of clean grain.
Agricultural Engineer	Rodent, insect-proofing; mechanical devices.	Furnishes material on proper construction.	Advises on storage structures.
Information Specialist (News-radio-TV-Visuals)	Prepares radio tapes, television programs, news releases, colored slide sets, television kit.	Handled State news and feature articles, assisted with radio and television materials.	Prepared news releases and radio programs.
Other	State leader of programs on reports - planning and direction.	Economist includes material in Outlook information. - - - Irrigationist works with others in program.	



## METHODS USED IN CLEAN GRAIN PROGRAM

The educational program on clean grain among the States varies depending upon the kinds and volumes of grain produced. The program in cash grain producing States differs from the program in States where grain is mostly fed to livestock.

The following summary by States records some of the principal clean grain program activities in 1956. The highlights regarding events or devices proven to be particularly helpful are recorded. The manner in which Extension Service personnel cooperated with other agencies and organizations is noted in some instances. Examples are also given which illustrate their leadership role in bringing trade, industry and organizations into the program.

### Arkansas

County agents carried on demonstrations in bin construction, fumigation, farm clean-up. Radio was used extensively by county and State personnel. At least one television program was carried by each station cooperating in the State.

Farm organizations, such as Farm Bureau and Grange, helped reach more farm leaders with the educational program. Trade and industry cooperated by furnishing demonstrational materials and by stressing the importance of clean grain in marketing. ASC was helpful in stressing the importance of clean grain and in making surveys of infestations.

Farm meetings and demonstrations were the most outstanding method used. Meetings of farmers were held on the farm at the site of the grain bins. Sources of contamination were pointed out and demonstrations given on the best methods to do away with the sources.

### Colorado

The State Extension Service carried on its educational programs throughout the year through news stories, radio transcriptions, information furnished to county agents and grain handlers.

At the county level, educational programs were carried out through news stories, radio, and personal contacts. Agents have been requested to send samples of any infestations reported to the department for identification and record.

The extension entomologist cooperated with the experiment station on stored grain insect research in an advisory capacity, and with Colorado State Department of Agriculture and U. S. D. A.

on a Khapra beetle survey. He also cooperated with the Pure Food and Drug Administration and Colorado Grain Dealers Association on better sanitation.

Handlers received "Bug News" cards and news releases on sanitation methods.

### Georgia

The committee responsible for the clean grain educational program met several times just before harvest season for small grain and corn to make plans for disseminating effective information about harvesting, handling, and storing of grain. Some 498 millers in Georgia received a packet of literature on insect and rodent control in stored grain. This same information was sent to county agents in leading grain-producing counties.

Two thousand copies of plans for making a homemade corn cleaner were made available to the grain industry.

Exhibits emphasizing clean grain were placed in five county fairs and at the Southeastern Fair in Atlanta. Talks and demonstrations were given in some 25 meetings, and at the State meeting of the Corn Millers Association on clean grain. Models of grain storage and grain cleaning equipment developed in North Carolina were used at a number of meetings.

A trailer exhibit emphasizing proper storage and clean grain and owned by the Extension Service was used throughout the State.

The movie, "Making A Good Food Better," which emphasizes grain sanitation, was used in some 30 meetings. Extension workers took part in a number of radio and television programs on clean grain. Mimeographed letters and news articles were sent to newspapers, county agents, millers, grain storage operators and others in the grain industry.

County extension workers, both men and women, took part in district and county meetings, furnished information to local papers, radio, and television stations, and appeared on programs on grain sanitation.

A survey was made of all millers and processors from which furnished information compiled about the amount of grain bought, uses made of the grain, and the form and condition in which they wanted grain delivered.

Farm organizations, including Farm Bureau and community improvement clubs were encouraged to have at least one program on grain sanitation. County agents and specialists cooperated in these meetings.



The State Chamber of Commerce, together with a number of their local chambers of commerce, trade organizations, and civic clubs used the committee's information as a source for programs to emphasize both handling and storage of Georgia grain.

### Indiana

1. Two portable exhibits were shown at several county fairs and to other farm groups.

2. Thirty-five visits were made to county elevators by the grain marketing specialist.

3. Forty-five farm visits were made to discuss the subject of grain drying, storages and structures.

4. Twenty-three farm visits were made to discuss insect and rodent control.

5. Thirty farm meetings were devoted entirely to grain sanitation.

6. Forty farm meetings were devoted in part to grain sanitation.

7. A county Elevators' Short Course was held at Purdue University and was devoted in part to grain sanitation.

8. A sanitarians' conference held at Purdue University was devoted in part to grain sanitation.

9. A pest control operators' conference held at Purdue University was devoted in part to grain sanitation.

10. Approximately 12,500 pieces of literature were distributed.

11. Seven live television programs were presented.

12. Two television scripts were distributed for statewide use.

13. Four radio scripts were distributed for statewide use.

14. Six news articles were distributed for statewide use.

15. The topic of grain sanitation was also discussed many times by county agricultural agents at various meetings and other communications of a local nature such as office calls, telephone calls, news articles, radio and television programs. The agents are kept advised of the grain sanitation problems by means of news letters, county agent conferences, literature, and visual aids prepared for their use.

## Iowa

The principal Iowa clean grain activities included short courses on the campus for elevator managers, elevator assistant managers, cooperative directors, and managers. Time was spent on grain warehousing and grain sanitation at each short course. Other activities included trade association meetings, farmer meetings, television and radio broadcasts, and Better Iowa releases about the program. Entomology activities involved spring and fall district meetings with State elevator operators. Ten meetings were held with about 400 operators present. State and district training meetings on insect and rodent control were held cooperatively with ASC. Five of these meetings were attended by 300 supervisors. Six counties used the clean grain section of the field crop pest activity as their 4-H activity during the past year. In addition, radio, television, and statewide news stories were prepared on clean grain.

Trade associations worked closely with campus short courses, and, in addition, used staff members in their own clean grain meetings. The Western Grain and Feed Association and the Farm Grain Dealers Association have been most active. For example, FGDA sponsored about ten grading schools. ASC and CSS officials have cooperated fully.

During the past two years the agricultural engineering department has carried on on-the-farm grain storage studies in Story County. Fifty bins of grain were included in this study. These bins were continuously ventilated with a low-volume air flow to control moisture migration and spoilage in farm-stored corn and soybeans.

## Kansas

Throughout the six years that the grain sanitation educational program has been carried on in Kansas, the work-horses of the committee include the Kansas Wheat Improvement Association, Kansas Grain and Feed Dealers Association and the Kansas Extension Service. The original 26 members of the committee gave essential impetus to the program. A coordinated educational program is now carried on by the three organizations. The clean grain educational program is carried to all people in Kansas through the interest of these organizations.

The percentage of carloads of "weevily" wheat arriving at the Kansas City inspection point has gradually dwindled. At the beginning of the grain sanitation program in 1950, receipts of "weevily" wheat averaged between 5 and 10 percent. (August, 1956, percentage was 2.90 percent and for the previous 6 months, ranged from .41 percent to 1.2 percent).

The clean program in 1955 and 1956 has been one of constantly reminding producers and handlers of the regulations and keeping them vigilant of sanitation programs.

Ten one-day district grain grading schools were attended by 1,048 people.

Three hours of the six-hour program were directly or indirectly connected with the identification and control of stored grain insects. The outstanding feature of the day's program was the session on the identification and drawing of the 13 common stored grain insects. Each student was provided with an insect mount box containing the 13 insects and a mimeograph sheet. On the mimeograph sheet, the student was to draw the insect and label the identifying "field marks." The insect mount and the mimeograph sheet proved to be of great educational value.

100,000 copies of Leaflet 30, "Stored Grain Insects and The Clean Grain Program" were made available to producers and grain handlers.

#### Louisiana

The following information material was issued or distributed in connection with the clean grain program: Southern Cooperative Series Bulletin 29, "Recent Research on Drying and Storage of Rough Rice"; Louisiana Extension Publication 82, "Louisiana Rice"; U. S. D. A. Farmers' Bulletin No. 1260, "Stored Grain Pests"; Circular 13, U. S. D. A. "Rat-Control Methods"; Louisiana Experiment Station Service Leaflet No. 37, "Control of Stored-Rice Insects; Mimeographed Circular, "Control of Rats and Mice"; Louisiana Experiment Station, Department Circular No. 18, "Recommendations for Bin Drying and Storage of Rough Rice"; Mimeographed Circular, Prevention of Insect Damage to Stored Rice."

A subject matter film on stored grain sanitation appeared to be the most important and beneficial informational device used. Better methods of drying rice was an important item on the program. This included not only better keeping qualities of the rice, but also less insect injury because of reduced moisture content.

#### Michigan

Michigan activities included:

1. Revision of Extension Folder F-134 "Prevent Damage to Stored Wheat" -50,000 copies printed.
2. Clean Grain Poster - approximately 3,000 were printed and distributed to grain elevators, feed and farm supply stores, implement dealers, country banks, ASC offices and county extension offices.

3. Information to Elevator Managers letter. This was written for elevator managers, although also sent to vocational agriculture teachers, feed dealers, and county extension offices. There were 11 weekly issues sent to 1,700 persons or firms.

4. A slide of the clean grain poster and a script for it was sent to television stations in the wheat-producing areas.

5. Clean grain mat for daily and weekly newspapers.

6. Radio station WKAR "Clean Grain Series" as follows: (Weekly on each Tuesday at 11:45 a.m., May 1 through June 12).

<u>Speaker</u>	<u>Subject</u>
Secretary, Michigan Feed and Grain Dealers Association	"The Clean Grain Program and What it Means to the Michigan Wheat Producer"
Extension Specialist in Agricultural Engineering	"Rodent-Proofing Grain Storages"
Associate Professor of Zoology	"Rodent Control Methods"
Administrative Officer MICHIGAN ASC	"Our Experience with Wheat Storage on the Farm"
Commissioner, Michigan Department of Agriculture	"What Farmers Should Know About the New Treated Seed Coloration Law"
Extension Specialist in Entomology	"Grain Insects"
District Marketing Agent	"Clean Grain Questions and Answers"

These programs were recorded and the tapes made available to county agricultural agents. In addition, radio news releases were made from them.

7. Radio Station WJR - two broadcasts about the clean grain problem.

8. Weekly news releases were distributed during the wheat harvest season. On June 22, the subject of clean grain was featured in the Michigan Farm Bureau News.



## Minnesota

A series of ten one-day grain project training meetings were held for county agents, 4-H club leaders, and a few junior leaders. They received special training on the clean grain and storage aspects of handling grain on farms. All material presented was tailored for use as demonstrations and booth exhibits at achievement days, local meetings, elevator annual meetings, county and State fairs, and displays.

This series of training meetings included the 37 most important grain-producing counties and was attended by 319 leaders. Over 2,000 pieces of literature were distributed in addition to the ideas left with the leaders.

A survey of the 37 counties revealed these results:

Three counties had booths on the subject of clean grain at the State fair. Over a million people attended the State fair this year.

There were 144, 4-H demonstrations on various phases of the clean grain program at county fairs. Some were repeated at the State fair.

Six counties conducted county-wide meetings on clean grain for their members and leaders.

It is difficult to estimate the number of people reached through all of the practice sessions on demonstrations, community meetings regarding a booth, local exhibits, local news releases, and local radio programs which resulted from this concentrated attempt to help young people become familiar with the problem and present it to their friends and neighbors. Many local elevator operators provided local incentives and assistance.

County extension programs included a repetition of the local market center meetings on clean grain which were so successful last year, but no record of the number is available. Local elevator annual meetings were again serviced with exhibits, slide sets and short movie films on the subject of clean grain. Timely news releases and radio programs were used throughout the year.

Exceedingly close cooperation has occurred with the ASC, grain industry service associations, and the Grain Exchange in preparation of the visual aids for use of county agents and vocational agricultural instructors.

A three-day grain marketing conference was held in April at which all interested groups exchanged ideas and renewed plans for continued cooperation in a unified approach to the clean grain problem.



One new slide set on stored grain was added to our supply of visual aids.

### Mississippi

Control measures were explained in an item in the suggested material for the county agent's weekly newspaper articles in all 82 counties.

A member of the Extension Entomology Department discussed clean grain for five minutes on one of the daily taped-recorded programs used by 37 radio stations. After the initial tape-recorded radio discussion, the assistant extension editor who conducted the program referred to it on three other dates, advising interested listeners to see their county agents for further information. The subject of clean grain was presented once on television as a five-minute portion of a weekly extension farm telecast over station WJTV in Jackson. Brief additional reminders were given on four other television programs over the same station. The subject was covered once in a radio script mailed to 52 radio stations.

### Montana

The State Extension Service furnished county personnel with material for meetings, demonstrations, radio, and television. 4-H clubs and FFA chapters received demonstration material. The clean grain program was included in the 4-H leader's training school on crops.

#### County Extension Services

34 counties had 46 meetings--3,693 attendance.

34 counties had 129 spots on the radio.

34 counties had 42 news articles.

34 counties had 127 articles in various publications.

34 counties had 4 demonstrations--270 attendance.

12 counties had 4-H club participation--

22 clubs enrollement--257

76 farm visits

400 clean grain cards used on bins

69 talks on clean grain

19 demonstrations

21 exhibits and displays

15 counties reported 829 new bins with a storage of 2,778,074 bushels.

The entomology department has made bin surveys to determine the extent of infestation in stored grain of rodents and insects.

Displays from the Northwest Elevators' Association have been used freely at both the State and county level. Displays,

discussions, and slides on the clean grain program were a part of the 4-H grain marketing tour sponsored by a commission company at Great Falls.

The clean grain program was a part of 4 elevator men's meetings conducted by NCIA.

FFA Chapters in Montana have a very active program.

### Nebraska

Principal clean grain activities of Extension Service:

- a. 30 radio tapes
- b. 6 leader training meetings--attendance 101
- c. 14 district grain dealers' meetings--attendance 666
- d. 7 elevator men's meetings--attendance 467
- e. 9 farm meetings--attendance 172
- f. 9 television programs
- g. 2 county rat control demonstrations
- h. Exhibit at Nebraska Wheat Show
- i. 28 news releases
- j. 10 Nebraska Farmer news articles (read by 90 percent of Nebraska farmers)
- k. 1 cooperative demonstration with a Farm Grange
- l. 2 sets, colored slides for county agents
- m. 1 television kit for county agents.

Principal clean grain activities of county extension services included use of radio, television, farm meetings, demonstrations, and farm visits.

Material prepared on clean grain during the past year:

- a. E. C. 55-1572 - "Control Rats and Mice"
- b. Insect letters to county agents
- c. Rat and mouse control week newspaper cut
- d. Governor's proclamation
- e. 1953 survey of stored wheat in Nebraska (used during 1955)
- f. Letter from Associate Director
- g. Suggestions for County Committees
- h. Packets of literature (14 pieces) to all county agents and vocational agriculture teachers.
- i. Rat and mouse poster

Leader training meetings were a new method used in the Nebraska clean grain program. Utilizing the services of the U. S. Fish and Wildlife control specialist, the State Department of Health entomologist, and the Extension entomologist, provided a more efficient approach to the educational problem. Nearly all phases of rodent-control activities were included in order to develop a general interest in this program. This cooperative unit of three agencies will conduct leader-training programs.

### New Mexico

The principal clean grain activities were carried out through meetings, demonstrations, press, and printed publications. The meetings and demonstrations were primarily at the county extension level with the press and printed material being prepared at the State level.

Very close cooperation is maintained with farm organizations and agencies such as the Farm and Livestock Bureau, the New Mexico Grain and Feed Dealers Association, the Agricultural Research Service, and the State Department of Agriculture.

The main means for keeping these outside groups informed of clean grain activities are through extension representatives at their meetings and through printed material.

### North Carolina

The State extension service (and the other agencies represented on the grain committee) cooperated with county extension services in a series of 14 county grain production and marketing schools during the year attended by 394 persons. A major part of the information presented in these schools was directly related to the grain sanitation program.

Members of the North Carolina Grain Production and Marketing Committee formed a panel and presented the clean grain program, along with other technical information, at two meetings of the Eastern and Western North Carolina Corn Millers' Associations and the North Carolina Grain Handlers' Association. Both organizations asked for continued work in the area of grain sanitation.

This same information was presented to 326 bankers and leading farmers at a conference at North Carolina State College. This group of bankers represents one of the most important avenues leading to the adoption of more efficient clean grain practices.

There have been many radio programs dealing with the clean grain program at both the State and county levels.

An extension entomologist presented a television show dealing with the dangers of insects and rats in our stored grain and how to protect our grain from these pests. This was one in a series of three television shows staged as a part of the work of the North Carolina grain committee. Other television shows have been presented by personnel in the counties, and by the Committee's ASC representative in connection with the grain price support program.

Many members of the committee, and primarily the extension entomologist, have prepared news releases about the clean grain program which have been distributed to newspapers of the State.

The grain committee organized and presented a statewide grain school which was attended by 43 managers and other top personnel in the North Carolina grain industry and included various phases of the clean grain program.

Several members of the grain committee appeared before the annual meeting of the ASC workers in North Carolina. A part of the program was devoted to a discussion of the clean grain program, insect control and rodent control. This was an extremely important aspect of the committee work in the clean grain program during the year. State and local ASC workers have a direct influence on the practices followed by farmers in the control of insects and other contaminating elements.

The extension entomologist has included information about the clean grain program in his publication "Insect Notes." Usually about 225 copies of this publication are distributed to all county agents, insecticide dealers, district agents, and the director's office.

#### Ohio

Principal clean grain activities involving the State Extension Service:

- Group meetings--10--attendance 500
- Press releases--17
- Radio--8 programs--on tape service to 48 stations
- Circular letters to agents--10
- Farm publication (Ohio Farmer)--9 articles
- Circular letters to trade--3

County Extension Service's activities included:

- Group meetings--10
- Radio programs--100
- USDA slides used--10

Farm organizations made space available in publications, issued articles and publicity and provided opportunities on programs at meetings for discussion of clean grain.

Trade and industry represented on the committee, advised as to needs, advanced money for material and cooperated in organizing group meetings.

Outside groups were advised of extension activity through periodic meetings of the Quality Wheat Committees, on which industry groups are represented. Progress reports were given in detail at these meetings.



A circular letter containing committee progress reports was sent to all committee members and to interested trade and educational personnel.

Five thousand printed copies of a revised poster on controlling grain weevils were distributed through county extension offices.

Farm publications articles were prepared for the Ohio Farmer, which is distributed to 75,000 farm families in Ohio and considered a primary source of agricultural information. This involves no cost other than time to prepare articles. Staff of Ohio Farmer does a fine job of illustrating and featuring. We consider this medium one of the most efficient and effective for this type of information. Specialists in the various subject matter areas prepare timely articles for this publication. Since circulation is highly specific to farm families, no "negative" publicity results. Based upon our experience, we highly recommend use of localized farm publications.

#### Oklahoma

Oklahoma has been carrying on an active clean grain program since 1952.

A survey of the stored grain insects situation is being made. This work, just now under way, is being done by the survey entomologist, Oklahoma A. & M. College. Visits are made to farms, county, and terminal elevators throughout the State. Information obtained is used as a basis for educational work in the clean grain program. The survey provides information on (1) new insects which may enter the State, such as the Khapra beetles, (2) conditions under which stored grain insects infest grain, such as migration from nearby granaries or farm buildings (3) identification of various stored grain insects where infestation is heaviest.

County agents, farmers, and grain dealers have been encouraged to send insect specimens to Oklahoma A. & M. College for identification.

In cooperation with other States in the hard red winter wheat area, a leaflet is being prepared in color which identifies all the principal stored grain insects.

Emphasis was placed on the clean grain program in the first annual training course in grain elevator business. Subjects discussed were: "Insect Control in Commercial Storage," "Rodent Control", and "Aeration in Commercial Storage Structures." More than 100 grain dealers attended the training course, representing six States and 27 Oklahoma counties.



Four area meetings were held during which reports of extension activities in this field were made to 461 grain dealers.

Five county-wide training schools in grain marketing and clean grain program were held. An average of 25 members and leaders attended each school which featured demonstrations, discussions, and exhibits. The 4-H club members studied how to recognize, identify and control various sanitation problems. As a part of the training sessions, the 4-H'ers visited a local elevator and learned of the losses which might be prevented by clean grain activities on the members' farms. They were also shown fumigants, insecticides, and pesticides for controlling the sources of grain contamination.

Grain Marketing 4-H Team Demonstration, an award program encouraging clean grain demonstrations in county 4-H club activities was sponsored by the Oklahoma Wheat Research Foundation. Eighteen individuals represented their counties with demonstrations at the Annual 4-H Club Round-Up at the Oklahoma A. & M. College. Demonstrations generally pointed out the storage situation, advantages of marketing clean grain, contamination causes, and control measures. Extra points could be earned by reporting the number of times the demonstration was presented before groups in the local county.

Twelve radio broadcasts were made on clean grain, residual sprays, materials for fumigants, points to consider in fumigation, timing fumigation, etc. Nine tapes were made for A. & M. tape library. Each tape was used on 42 radio stations.

Five news articles were used in various newspapers and magazines on rodent and stored insect control.

Twenty-three community meetings were held with 2,300 wheat producers listening to discussions and observing demonstrations on the clean grain program.

Five 4-H marketing and grain grading schools were held. One hundred and thirteen club members attended these schools. Thirty-two 4-H club members discussed the clean grain program at the 4-H Club Round-Up.

An example of county 4-H group activity in clean grain: The 16 members of the Finley 4-H Club in Kay County chose clean grain as a group activity of their club for 1956. Each of the members were responsible for distributing information relative to clean grain to the farmers in their neighborhood. The members visited every farmer in their community who had farm stored grain. They explained the clean grain program, inspected his grain for contamination, and told the farmer the condition of this grain. They offered assistance in correcting any major source of contamination and gave the farmer extension bulletins supplied to them by their county agent. The literature distributed included "Wheat is Food --Keep it Clean", "How to Protect Farm Stored Grain", and "What about Marketing Pink Wheat".

Members of the Finley Club were winners in the State awards program in clean grain team demonstration at the 4-H Club Round-Up.

Outside groups are kept informed of extension's activities in clean grain through an information letter "Wheat Marketing Notes", which is mailed each month to county agents, county ASC office managers, all vocational agriculture teachers, and all grain elevators in the State. This letter is also sent to State office personnel of the above-mentioned organizations. Each letter contains information about the clean grain program.

In addition, circular letters, radio, television, and personal correspondence is used to inform outside groups about the clean grain program.

The most successful part of our clean grain program in 1956 was the progress made in 4-H Club work. Demonstrations by 4-H Club members before producer groups and grain elevator groups has been of great benefit in telling the clean grain story. Lasting effect will also be obtained with emphasis in this area of educational work.

#### Oregon

Three radio programs dealing with the clean grain program were presented by the extension entomology specialist. County extension agents also mentioned the program in their news columns and over radio.

For the past two years a grain sanitation short course, of three-day duration, has been given at Washington State College. Although Oregon State College assists in the short course, Washington State and Idaho, because of their proximity to the wheat-growing area and more central locations, have carried the burden of preparing and presenting the short course. The short course is designed to be helpful to elevator operators and their employees.

During the past year entomologists of the three institutions with assistance from the Grain Sanitation Committee have prepared an extension bulletin on the control of stored grain insect pests to be published jointly by the three colleges.

#### Pennsylvania

Principal clean grain activities by the specialists involved the preparation of news articles, radio script and television program material which could be used by county personnel. A letter was sent to all county agents informing them of the importance of clean grain and the requirements necessary to meet national standards. At all meetings of grain farmers attended by specialists during the summer this program was discussed.

County personnel were encouraged to include these matters in their local meetings, news releases and radio programs. In at least two major elevator counties the county agents discussed the program with elevator operators.

Fourteen demonstrations were held in counties to show how grain bins should be cleaned and sprayed before grain is put in storage. In addition, at least 23 other types of demonstrations and meetings were held on the county level. Circular letters and individual assistance to farmers were also used. It is estimated 3,969 farmers and operators were contacted directly by this program during 1956. This does not include those motivated to take action as a result of news articles, radio and television.

### Missouri

The principal clean grain activities for the past year are as follows:

1. Discussed clean grain program at all soils and crops conferences. These are held in all counties in the State with about 20,000 farmers in attendance.
2. One to five kinescope used on six television stations. Four live television programs made on clean grain.
3. Three tape recordings on clean grain--each sent to thirty stations.
4. Four live radio programs made on the subject.
5. Clean grain discussed at 16 county-wide marketing meetings with about 2,000 farmers in attendance.
6. Clean grain discussed at two meetings of grain dealers--240 in attendance.
7. Clean grain was mentioned in six weekly insect letters with a mailing list of 1,200 including county agents, weekly newspapers and industry leaders.
8. County agents cooperated with ASC with demonstrations on insect and rodent control. The ASC made valuable contributions to the Clean Grain Program in all counties.

### North Dakota

One-hundred and twenty-three 4-H clubs representing 1,171 members from 33 counties were enrolled in the clean grain crusade. All members enrolled were competing for \$1,000 in award monies. Each member was required to survey at least one granary and they were also encouraged to carry out whatever corrective steps were necessary.



Publicity relative to clean grain activities was prepared throughout the season with major emphasis on publicity during Clean Grain Week.

The week of July 9 through 13 was designated as North Dakota Clean Grain Week. A "kick-off" banquet was held in Bismarck. Attendance included national, State, and county personnel.

Other activities included: Television short course--a one-half hour television program was presented on clean grain along with other agricultural subjects during a week's agricultural short course put on by the North Dakota Extension Service and the Dakota Television Network. Coverage included over two-thirds of the State.

Meetings--A total of 13 educational meetings were held by the extension entomologist with a total attendance of 1,863.

Demonstrations--Clean grain demonstrations were held in 12 North Dakota counties. These programs were held jointly by the county agent and the North Dakota Rodent Control Branch, Department of Agriculture and Labor, U. S. Fish and Wildlife Service. Each county set aside one week for holding demonstrations. Rodenticides were purchased by the counties for use during the demonstrations. Bin sprays and soil sterilants were made available by a commercial company. Final figures are not available at this time; however, each of the 12 counties held an average of 6 demonstrations. Nearly 20 tons of prepared bait were purchased by counties participating in the program.

#### South Dakota

A statewide clean grain week was proclaimed by the Governor.

A series of meetings were conducted with ASC loan supervisors, bin supervisors and CCC bin site men and represented perhaps the most significant accomplishments of the year. The agricultural engineer and an entomologist discussed grain storage construction, insect and rodent control and crop drying. Instruction in identifying wheat varieties was covered by a representative of the Northwest Crop Improvement Association.

Additional work was done by radio, television, news releases, feature stories and circular letters.

At the county level, extension agents worked closely with county ASC representatives, 4-H clubs, adult farmer classes and county crop improvement associations. Many agents have access to radio time and newspaper columns. More are beginning to use television in their programs.

Trade and industry have been quite cooperative and active. Oftentimes, local elevator operators will help sponsor meetings in the counties, offer door prizes, serve refreshments, etc. They have increased advertising for insect and rodent control materials and furnish their dealers with generally reliable information.

About 50,000 copies of one new leaflet, "South Dakota Grain Grows Clean" were distributed to farmers and elevator operators by Extension, ASC county committees and the South Dakota Public Utilities Commission.

Clean Grain Week was held June 18-23. Special news articles, radio talks, television shows and distribution of leaflets were concentrated in this week. A series of meetings with elevator operators combined with grain grading schools were held just before Clean Grain Week.

#### Tennessee

Principal clean grain activities at the State level have included assisting with insect and rodent control demonstrations, storage construction planning, newspaper and radio publicity relative to proper harvesting and storage.

Most State activities have been directed through county workers. Therefore, activities at the county level would similarly include insect and rodent control demonstrations, storage construction planning, and proper harvesting and storage newspaper, and radio.

#### Texas

Clean grain activities sponsored and directly supported by specialists who are members of the extension service clean grain committee include:

a. Meetings for agents and leaders	28--1,864 in attendance
b. Publications revised	2
c. Newsletters	2
d. News articles	16
e. Radio programs	12
f. Demonstrations	13
g. Magazine articles	1

Outside resources were used to promote distribution of publications and information. Farm organizations were included in the committee organization to formulate policy. Trade and industry circulated publications and permitted spots on their meeting agenda for explaining the program and phases of work. Close cooperation



was maintained with CSC and ASC, with joint participation in meetings, demonstrations, and publication distribution. Manufacturers, dealers, and users of farm drying and storage equipment assisted with and participated in short courses and farmer training meetings on maintaining quality of farm stored grain.

A farm structure short course has been a particularly useful vehicle to enlist cooperation of dealers of buildings in assisting us to spread the information concerning quality and clean grain. Such a short course is now conducted at Texas Technological College in addition to the one at Texas A. & M.

#### Washington

The State extension service was represented at two grain sanitation committee meetings and at the Northwest Crop Improvement Association annual meeting which included clean grain on its agenda.

A radio tape was prepared on stored grain insects for 26 radio stations and three radio talks were given on clean grain.

Several news articles were prepared on stored grain insects and county agents were provided with various Federal bulletins and releases on the subject. An article was prepared for the Washington Farmer on Khapra beetle. Several other releases were prepared on Khapra beetle. Stored-grain insects were discussed at Pacific Northwest Pest Control Operator's Conference. Assisted in preparation of bulletins on stored-grain insects.

County agents have assisted elevator operators and farmers with control of insects of stored grain. They also assisted in a survey of storage facilities and made news stories available to local papers. They distributed bulletins and other releases to farmers and elevator operators.

#### Wisconsin

From the State Extension Service level there have been the following activities:

- 7 demonstrations
- 6 radio programs
- 3 television programs
- 6 newspaper and radio news items
- 3 meetings
- 1 movie (made with the Agricultural Journalism Department, the movie is 12½ minutes, sound, black and white, 16mm. A directed youth group organizes a community rat control program. Such items as people to contact, various spots to look for rats on the farm, necessary amount and kinds of bait and bait stations are covered.)

Most use was made of kit material prepared by Wisconsin Alumni Research Foundation for rat and mouse control achievement programs by organized youth groups like FFA and 4-H.

### Virginia

The extension agronomist prepared two radio tapes on harvesting and drying of grain, prepared one news article on harvesting and storing grains, and participated in five farmer-dealer meetings and stressed proper harvesting and storage methods for grain.

#### Extension agricultural engineers:

1. Prepared eight radio tapes on farm storage structures and drying of farm stored grain.
2. Prepared four news articles on farm storage structures and drying of farm stored grain.
3. Participated in three farmers' meetings in which the importance of good corn and grain storage was discussed.
4. Participated in two television programs on grain sanitation, grain storage structures and grain drying.

#### The associate extension entomologist and rodent control specialist:

1. Prepared one radio tape on rodent control in grain storage buildings.
2. Participated in five leader training meetings stressing rodent control in farm stored grain buildings.
3. Stressed rodent control at four 4-H club county camps and at the State 4-H club conservation camp (8 classes with 260 in attendance).
4. Participated in 30-minute television program on clean grain activities stressing rodent control and grain sanitation aspects.

#### The extension entomologist:

1. Prepared three radio tapes on grain sanitation in farm stored grain and insect control in granaries.
2. Prepared four news articles on grain sanitation and insect control in farm stored grain.
3. Participated in four district county agent meetings and four leader training meetings at which major portion of time was devoted to discussion of grain sanitation and stored grain insect control problems.
4. Stressed stored grain insect control and grain sanitation in classes at four 4-H club county camps.

